

ASPECTS REGARDING THE SIZING OF AGRICULTURAL HOLDINGS IN THE WESTERN AREA

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Abstract: High-performance agriculture can only be achieved on modern farms. Lack of association, fragmentation of farmland, inadequate irrigation, small production units and poor technological endowment are some of the causes that prevent efficient and competitive agriculture. In this context, the General Agricultural Censuses bring us a series of information that outlines the way in which agricultural holdings are involved in the use of agricultural land in the western part of Romania. This identifies groups of farms, by size classes, whose farm structure is influenced by the category of land use and the geographical specificity of the area. Also, qualitative evolutions are noticed in the direction of changing the average size of the agricultural holding with legal personality.

Key words: agriculture, agricultural holdings, farm structure

INTRODUCTION

West is a development region of Romania, with a total area of 32,028 km², created in 1998, which includes the territories of four counties: Timiș, Arad, Caraș-Severin and Hunedoara. (Figure 1) The territory of the West - Romania region is segmented into two sub-regions, each of which has different structure and development problems [12].



Figure 1. Western Region

Source: https://ro.wikipedia.org/wiki/Regiunea_de_dezvoltare_Vest, 2022 [15]

The first sub-region includes the territory of Caraș-Severin and Hunedoara counties, in which different branches of industry developed early, since the beginning of 1948, among which the tradition of the Hunedoara steel industry stands out. This part of the region declined after 1990, due to historical weather conditions, causing very high unemployment among labor statistics [12].

Timiș and Arad counties make up the second sub-region. This sub-region has had and is experiencing extensive development in the fields of industrialization and urbaniza-

tion. Even today, this sub-region is the favorite framework for driving foreign investment [12]. Due to the agricultural area, corroborated with the existence of rich and qualitative soils, the sub-region enjoys a real agricultural potential, which it can capitalize on. Favorable climate, physical and geographical positioning offers multiple opportunities for agricultural development, so it can be said that an activity with tradition, passed down from generation to generation is the art of cereal cultivation and viticulture, which are successfully practiced in all areas of the sub-region. The establishment and development of individual farms lays the foundations of a new agriculture, which come to support and develop competitiveness in the Western Region [2,5,8]. The novelty element that has become an intrinsic part of the traditional agriculture of Timișoara is the production of vegetables in different microfarms, practiced, in the peri-urban area of the cities. Livestock is also a traditional branch of the region, the number of livestock has increased significantly in recent years [4,5].

The pivot of the socio-economic structures in agriculture is considered to be the agricultural holding, as an agent of the economy, with a certain specificity. This specificity is determined, in direct proportion to the land ownership [1,3,6].

The year 1989 brought profound changes in the agricultural exploitation structures in Romania, on the background of the change of the country's governing regime, by applying the land laws and practicing a new agricultural exploitation structure based entirely on the private ownership of agricultural lands [2,10]. But before 1989 the agricultural area of the country was owned in proportion of 29.7% by state agricultural entities, belonging to state agricultural enterprises 13.7%, in proportion of 60.8% by agricultural production cooperatives that left in the use of households of CAP members 6.1% of the agricultural area of the country and the households of private producers who owned only 9.5% of the total agricultural area, an area that represented, in law, the land ownership of non-collectivized peasants [2,4,13].

Thus, sizing is important because it ensures the normal development of all factors of agricultural production, outlining the prospect of increasingly efficient use of agricultural land capital, in conditions of increasing yields per hectare and profitability [1,7].

MATERIALS AND METHODS

The study is based on statistical data provided by the Romanian National Institute of Statistics for the years 2016-2020. We focused on the processing of relevant indicators for agricultural holdings, namely the number of agricultural holdings and the total areas on a holding and the agricultural areas used, with cultivated areas and the number of livestock in relation to the form of organization of holdings. The method of comparative analysis and graphical representation of the data were mainly used.

RESEARCH RESULTS

Due to the phenomena of industrialization and development of the service sector, which have acquired a special importance in terms of the economic part, the appetite for agriculture has decreased, in direct proportion to the source of employment in this field [9]. Consequently, the active involvement of farmers in the development of rural areas, agrotourism, rural economic diversification, in conjunction with the creation of new jobs and at the same time the protection of the environment is desired at regional, national and national level [3,9]. The structural survey in agriculture continues to be adapted, in an attempt to provide current and relevant data for the analysis and follow-up of these developments.

In 2020, in Romania there were 2887 thousand agricultural holdings (Fig.2) that used 12.8 million hectares of agricultural land. The results of the Statistical Yearbook show that, within 10 years, the number of agricultural holdings decreased by 972 thousand, respectively by 25.2%, and the utilized agricultural area decreased by 543 thousand ha, respectively by 4.1%. [13]

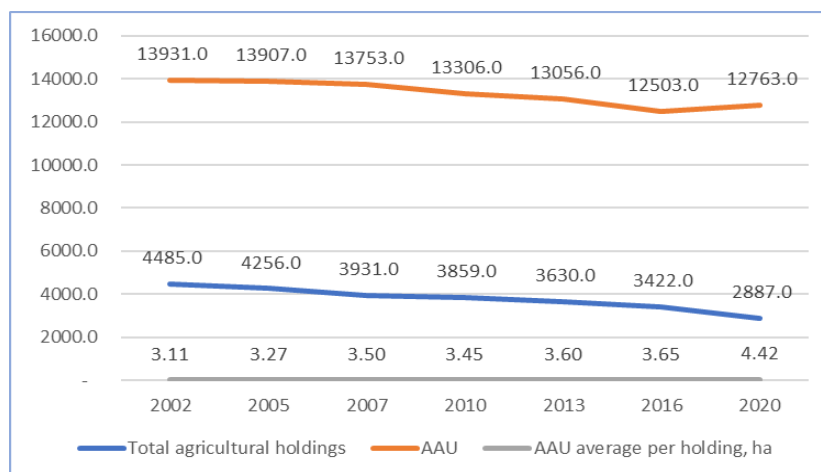


Figure 2. Total agricultural holdings and agricultural area used (AAU)

Source: <https://insse.ro/cms/ro/tags/anuarul-statistic-al-romaniei,2020> [13]

The actual number of farms in the agricultural field was approx. 2887 thousand, lower by approx. 972 thousand, respectively 25.2% compared to the General Agricultural Census of 2010 (the number of agricultural holdings that do not have legal personality was 2862 thousand, 25.3% lower than in 2010, and the number of holdings that fall into the category of legal personality was about 25 thousand, respectively, 17.3% lower than in 2010). The decrease of agricultural holdings led to the increase of the average agricultural area per holding [13] by about 28% (from 3.45 ha in 2010 to 4.42 ha. in 2020). The continuous decrease in the number of small farms (up to 5 ha) has left its mark on the structure of agricultural holdings by reducing the number of farms in terms of agricultural area used. Thus, comparing the two years, a significant decrease can be observed, in 2010, from 10.3% to 4.3% in 2020, in the case of farms with an area of less than 0.1 ha.; and in the case of farms that used large areas (over 10 ha) there was an increase from 2.2% in 2010 to 4.2% in 2020. [13]

In the year 2020, in terms of the structural part, from a numerically different point of view, compared to the configuration of the agricultural surface used in this way, by agricultural holdings under 1 ha, although they accounted for 54.0% of the total, they used only 4.6% of the agricultural surface; agricultural holdings with sizes between 1 and 5 ha accounted for 36.3% of the total number and used 18.2% of the agricultural surface; large farms, over 50 ha, had a very small weight (about 1%) in terms of their number, but used 54.0% of the agricultural area. Compared to 2016 (Table 1) where you can see the agricultural holdings with used agricultural surface, as well as the used agricultural area that are rounded according to the specifics of the region. In the North-East and South-East Regions it can be seen that they were the most agricultural holdings (33%) and at the same time they were the best in terms of agricultural area used. [13]

Table 1.

Agricultural holdings and agricultural area used in 2016

Indicators	U.M.	Macro-region							
		one		two		three		four	
		North West	Center	North East	South East	Bucharest-Ilfov	South Muntenia	South West Oltenia	West
Number of agricultural holdings with agricultural area used	thousands	476	323	708	394	20	669	529	223
Agricultural area used	thousands ha	1783	1513	1909	2065	64	2115	1480	1574

Source: <https://insse.ro/cms/ro/tags/anuarul-statistic-al-romaniei, 2017> [13]

Regarding the number of active enterprises in Timiș County (Table 2.), the largest county of the 4 components of the Region, there were in 2019, a number of 1047 enterprises in the field of agriculture, which demonstrates the fluctuating evolution since 2016 , until 2019 [15].

Table 2.

Active agricultural companies in Timis County

Active enterprises in: agriculture, forestry and fishing	Year	2016	2017	2018	2019
	U.M. (thousands)	1029	1055	1105	1047

Source: <https://timis.insse.ro/>, 2022 [14]

Regarding the situation of livestock (Table 3), a concentration of cattle was found in the North-East (22.2%), Central (21.8%) and North-West (19.3%) development regions. %). In terms of pig herds, the West (26.1%), North-West (15.3%) and South-East (13.8%) development regions with the largest swine herds were highlighted; sheep herds were predominant in the Central (20.3%), North-West (19.1%) and West (16.5%) development regions [14].

Table 3.

Livestock by region in 2020

Region	Cattle	Swine	Sheep
	thousands		
North-West	347	549	1862
Center	392	366	1981
North-East	399	406	1262
South-East	183	493	1579
Bucharest-Ilfov	3	6	8
South Muntenia	187	392	872
South-West Oltenia	133	430	569
West	151	935	1607

Source: <https://insse.ro/cms/ro/tags/anuarul-statistic-al-romaniei, 2020> [13]

CONCLUSIONS

In order to ensure the efficiency of agricultural production and activity in order to achieve the desire to grow and capitalize on farms based on plant and animal production, certain aspects must be taken into account. It was observed from the research that the number of agricultural holdings has fluctuated due to the concentration of areas, which is a positive aspect in the desire to achieve the desideratum for which a quality agrotechnical

processing of the land must be ensured. The important conclusion on the importance of sizing agricultural holdings is that they help to increase the efficiency of agricultural production factors, outlining the prospect of making more efficient use of working capital in agriculture, in terms of increasing yield per hectare and profitability. Against the background of the metamorphosis of the agrarian structures after 1989, respectively of the disintegration of the surfaces from the agricultural and production cooperatives, CAPs, respectively IASs. As a result, we can still see the lack of technology that can ensure increased plant and animal production.

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